

## **REMARKS**

In the office action mailed December 27, 2005, Claims 1, 4-27 and 30-45 were pending in the present application with Claims 14-26 being withdrawn. By the present amendment, Claims 14-26 have been canceled and Claims 46 and 47 have been added. Independent Claims 1 and 27 have also been amended to include the limitation that the polishing layer is a continuous layer. Therefore, Claims 1, 4-13, and 27-47 remain pending for consideration in the present application.

The Examiner rejected Claims 1, 4-13, 27, 30-33 and 37-45 under 35 U.S.C. § 103(a) as allegedly obvious over Bruxvoort et al. (U.S. Patent 5,219,462) in view of Homola (US 20040096705). Claims 34-36 as applied to Claim 27 were also rejected as allegedly obvious over Bruxvoort in view of Homola and further in view of JP 11-333706. Each rejection will be addressed in turn below.

### **Comments and Support for Amendments**

No new matter has been introduced by the present amendment. The amendments to independent claims 1 and 27 include adding the limitation to the polishing layer as “being a continuous layer.” Support for these amendments can be found at page 10, line 11 and pages 18-19. Support for new claims 46-47 can be found at page 15, lines 20-22 and page 15, lines 23-26. Further, it should be noted that such amendments have been made without conceding the correctness of the rejection, and without prejudice to Applicant’s right to pursue canceled or relinquished subject matter in a future patent application.

The addition of the phrase “continuous layer” specifies that the polishing layer is formed as a continuous layer having the projections which are features of this polishing layer. In this way, the projections can be renewed or remade by abrading or other methods using the portion of the

polishing layer which underlies the projections. Further, a continuous layer alleviates potential problems of adherence to a support substrate and loss of the projections, since the projections and the immediately underlying portions are formed as a continuous and single material.

#### **Rejections Under 35 U.S.C. § 103(a)**

The standards for establishing a *prima facie* case of obviousness were presented in a previous response. With this in mind, Applicant contends that the cited references fail to make a *prima facie* case of obviousness in that the cited references fail to teach or suggest all of the claim limitations of Applicant's invention.

#### *Bruxvoort in view of Homola*

Claims 1, 4-13, 27, 30-33 and 37-45 were rejected as allegedly obvious over Bruxvoort in view of Homola. Applicant respectfully submits that the amended claims are patentable over the cited references for the reasons set forth below, and requests that the rejections be withdrawn.

Specifically, Bruxvoort and Homola fail individually, and in combination, to disclose a fixed abrasive tool including a nanodiamond polishing layer which is "a continuous layer" having projections as claimed. A continuous polishing layer is one where the polishing layer covers substantially the entire working surface of the tool. The individual projections are thus of the same material, i.e. an organic matrix with nanodiamond particles therein, as the immediately underlying surface. This continuous layer can be formed in a wide variety of ways such as those disclosed in the specification or any other suitable method.

Bruxvoort teaches forming individual "abrasive composite members" embedded in recesses of a backing sheet to provide a desired lateral spacing between composite members. See abstract and Figs. 1 through 3. As can be seen in the figures, the backing sheet (42) is fully exposed and is

typically formed of paper, resins, etc. See col. 5, lines 42-47. This configuration is clearly a discontinuous layer of abrasive members wherein the exposed backing sheet is integral to the invention of Bruxvoort. Homola provides no motivation or teaching to modify the Bruxvoort reference to obtain a continuous layer as claimed. Thus, Bruxvoort and Homola fail to teach or suggest each and every element of the claimed invention. Accordingly, Applicant respectfully requests that the rejections be withdrawn.

*Bruxvoort in view of Homola further in view of JP 11-333706*

Claims 34-36 were rejected as allegedly obvious over Bruxvoort in view of Homola and further in view of JP 11-333706 (Kazuto). Applicant respectfully submits that the amended claims are patentable over these references. Specifically, the same distinctions apply to this rejection as with the previously discussed rejection. Further, Kazuto provides no additional teaching or suggestion to provide a polishing layer which is continuous rather than discrete and isolated projections. Therefore, Applicant respectfully submits that the cited references fail to render the claimed invention obvious. Accordingly, Applicant requests that the rejections be withdrawn and the claims passed to issue.

### CONCLUSION

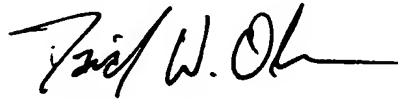
In view of the foregoing, Applicant believes that presently pending Claims 1, 4-13, and 27-47 present allowable subject matter and allowance is respectfully requested. If any impediment to the entry of this Amendment and allowance of these claims remains after consideration of the above remarks, and such impediment could be removed during a telephone interview, the Examiner is invited to telephone Mr. Erik Ericksen, or in his absence, the undersigned attorney, at (801) 566-6633, so that such issues may be resolved as expeditiously as possible.

Please charge any additional fees except for Issue Fee or credit any overpayment to Deposit Account No. 20-0100.

Dated this 27<sup>th</sup> day of June, 2006.

Respectfully submitted,

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